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#### REMARKS

Applicants request reconsideration of the pending claims for the following reasons and are agreeable to further changes in the claims to advance the prosecution of the case without the filing of an RCE:

1. THE REJECTION IS INCONSISTENT WITH THE TELEPHONE INTEVIEW OF APRIL 28, 2003; RETURNS THE PROSECUTION A PRIOR STATE AND THE EXTENSIVE PROSECUTION IS A HARDSHIP TO THE APPLICANTS.

Pursuant to the Interview, Applicants amended the claims in an RCE to elaborate on the details of the invention including (1) describing the server as proxy server for an ISP server, (2) providing the customer a unique IP address by the ISP and (3) mapping the unique customer IP address to a DHCP request to over come the cited references Beser 6,212,563; Sistanizadeh 6,101,1882, and Ditmer 6,490,620. The claims were further amended in Office Paper 12 to further distinguish over Sistanizadeh, and a new reference Driscoll 6, 577,627. Now, the Examiner has rejected the claims again on the same previously considered references (Sistanizadeh, Beser and Driscoll) contrary to the spirit and understanding at the telephone Interview of April 28, 2003 to advance the prosecution of the case. The final rejection returns the prosecution to state prior to the telephone interview and the extensive prosecution is a hardship to the inventors and assignee.

2. THE CURRENT CITED REFERENCES WERE DISTINGUISHED IN OFFICE PAPERS 9 AND 12 AND THE CLAIMS AMENDED IN AN EFFORT TO OVERCOME THE CITED REFERENCES.

The cited references fail to disclose a BMPS server providing proxy registration services for an ISP; an ISP assigning an IP address for a customer, and a customer sending a request directly to an ISP for access to the Internet after pre- registration with the ISP The references, alone or in combination, do not disclose or suggest these features. Moreover, a worker skilled in the art with knowledge of the references would not be able to implement the claimed invention, which includes features not disclosed in the references as will be described in the following Paragraphs.

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## 3. COMPARISON OF COMBINED REFERENCE TEACHING VERSUS CLAIMED INVENTION.

A. Combined teaching of references (Sistanizadeh; Driscoll and Beser):

The combined references disclosed and teach a standard DHCP server processing customer request for ISP services. The customer is identified by his/her Mac address. But the address does not indicate to the server, which ISP the customer desires. DHCP server engages in an initial exchange with the customer to obtain the customers name and password. Based on the combination of the MAC address, Login In and Password, the server can determine which ISP is sought and issue an IP address based on that total information. The MAC address stays the same for any ISP but the user name and/or the password changes based on the desired ISP. The DHCP server engages in an exchange with the customer and translates the customer information into a desired ISP connection. The customer may accept or decline the IP address. The user starts an application and requests a specific IP server via a Domain Name Server serving as a proxy before the DHCP server. The user contacts the ISP and receives an information reply. It is now possible for the user or anyone on the Internet to connect to the user based on the Domain Name that is temporarily registered by the Domain Name server for the user. A user packet transmitted to the DHCP server includes a series of layers, one of which is entitled, Options which encapsulates the user name, the MAC address an a public key/private key. The user packet does not include the name of the ISP server, which thus, requires DHCP server to process all user requests. However, Driscoll discloses a packet including a first address of an access point in the network and a second address of a desired ISP server. The Driscoll packet is processed by the access point, which strips off the access address and directs the packet to the second address of a desired server. The DHCP server does not map the unique customer IP address to a DHCP request. Beser is cited as providing this function via a client identifier generated for each network device as a function of an IP address. The DHCP server turns the same IP address each time the DHCP server is queried, contrary to the DHCP standard (RFC 2131).

Summarizing, the combined references disclose and teach a DHCP server assigning a unique address to a customer and processing each customer request for ISP service based on the mapped customer address and updating routing tables to enable the customer to connect to a desired ISP.

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#### B. Allard Invention:

A customer registers directly with an ISP before requesting service. The ISP sends the customer a log on program with the IP address, a log on script, customer ID and Password. The ISP sends a DHCP server a database update message containing the user name, user ID, password and any other details required to uniquely identify the user to both the ISP and the server. After validating the customer, the server updates the database with the ISP information and maps the data to the MAC address of the user. Thereafter, the server authorizes a customer modem and router access to the ISP in response to a DHCP messages or other services indicated in the user profile. The server sends the authorization message to the ISP host after which the customer is ready to access the Internet directly through the ISP of his/her choice. In operation, the customer sends an extended DHCP request to the server who stores the selected ISP, customer ID and password in its database. The server sends the selected ISP the extended DHCP message with the user ID and password and using the server as the source address. The ISP sends an extended DHCP response with the customer IP address to the server. The ISP updates the routing table, which allows the customer to use the IP address. The server maps the assigned IP address to the customer request. The server emulates the ISP and sends a standard DHCP. reply to the customer and then update the network router to allow the new address. The customer updates its address book to include the assigned IP address. With the IP address, the customer conducts normal ISP traffic. The server checks to determine if a session of the ISP has ended. The customer logs off using normal log off procedure. The ISP allows the customer's ISP address to expire, then updates the routing table, and sends a log off message to the server. The server cancels the customer address and updates its router, database after which the process ends.

Summarizing, Allard discloses a broad band proxy server, which enables customers to send requests directly to an ISP of choice when pre-registered with the ISP. The broad band server database and routing tables are updated by the ISP enabling customer requests to go directly to the ISP. The broad band server sends an acknowledgement notice to the customer after notification by the ISP.

## 4. THE COMBINED REFERENCES DO NOT SUPPORT THE REJECTION AND ARE IN ERROR.

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# 4.1. SISTANIZADEH DISCLOSES THE DHCP SERVER OBTAINS THE CUSTOMER NAME, PASSWORD BASED ON A DESIRED ISP AND FAILS TO DISCLOSE THE CUSTOMER PRE-REGISTERING WITH THE ISP TO OBTAIN A CUSTOMER NAME AND PASSWORD.

Sistanizadeh at col. 10, lines 25- col. 11, line 5 discloses the DHCP SERVER engages in an initial exchange with the customer to obtain the customers name and password based on a desired ISP. In contrast, Allard discloses a customer or end user signed up to ISP service by means other than a network, for example, mail, phone card and ISP sends the customer a logon program with the ISP address logon script of the customer, customer ID and password. Page 10, line 22 continuing to page 11, line 2. Sistanizadeh fails to disclose the customer registering with the ISP.

## 4.2. SISTANIZADEH STORES THE CUSTOMER NAME AND PASSWORD IN THE SERVER DATABASE AND FAILS TO DISCLOSE THE ISP STORING THE CUSTOMER NAME AND PASSWORD IN THE ISP DATABASE.

Sistanizadeh at col. 10, line 25- col. 11, line 5 and col. 10, lines 15-25 discloses the DHCP SERVER can determine which ISP is sought by a customer and issue IP address based on the customers name and password. In contract, Allard discloses the ISP sends the board band server a database update message containing the user name, user ID password and any other details. The board band server updates the database with the ISP information and maps the data to a sending modem or source address such as the modem MAC address. The board band server authorizes the modem and router access to the ISP board with DHCP messages or other messages in the user profile. Page 11, line 2 – lines 14. Sistanizadeh fails to disclose the ISP updating the DCHP server database.

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## 4.3. SISTANIZADEH DISCLOSES THE DHCP UPDATING THE ROUTING TABLES AFTER A CUSTOMER REQUEST AND FAILS TO DISCLOSE THE ISP UPDATING THE ROUTING TABLES PRIOR TO A CUSTOMER REQUEST.

Sistanizadeh at col. 3, line 65 continuing to col. 4, line 9 discloses packets sent from a source on the internet to the user are first directed to the users ISP to find the network routing tables which are updated dynamically under the control of the DHCP server. In contract, Allard discloses the board band server sends the ISP an extended DHCP packet received from a user. The ISP checks its database and if the request is legitimate the ISP sends the extended DHSP to the board band server and updates the router tables, as described at Page 12, line 14 at 16. Sistanizadeh fails to disclose a DHCP server updating the routing tables after the ISP processes a customer request. Driscoll fails to disclose the missing element in Sistanizadeh. In Driscoll, when the modified packet reaches the selected ISP the ISP removes the outer header exposing the inner header. The exposed IP packet then enters the Internet in a format just like that of any other Internet packet. In contrast, Allard disclosed board band server sends a logon request to the selected ISP on behalf of the customer using the extended DHSP message. The ISP server checks the IP and password in its database and if legitimate proceeds as normal returning an IP address assignment to the source address that is the server using the DHCP message format. The server updates the database and routing tables so as to allow future customers messages with the authenticated address to traverse links authorized to the selected ISP the customer updates his address mechanism with a valid IP address for IP usage. Future IP packet flow from the customer to the router then to the selected ISP which forwards the message to the message designation. Page 9, lines 14-23.

4.4. DRISCOLL DIRECTS A CUSTOMER REQUEST TO AN ACCESS POINT WHICH STRIPS OFF THE ACCESS ADDRESS AND SENDS THE REQUEST TO THE ISP ADDRESS. DRISCOLL FAILS TO DISCLOSEA CUSTOMER REQUEST SENT DIRECTLY TO THE ISP.

Driscoll at col. 3, lines 30-64 a packet discloses a standard IP packet including information encapsulated within a larger packet pre-pended with a second header. The second header comprises the source address of the sender and the access network. The packet is sent to

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the first address, which strips off the pre-pended header and directs the packet to a second address in the packet. Driscoll fails to disclose sending the packet directly to the final address as in the case of Allard.

4.5 BESER DISCLOSES A CABLE MODEM SENDS A DHCP DISCOVER
MESSAGE TO A DHCP SERVER WHICH SENDS A UNIQUE CLIENT
IDENTIFIER FOR AN IP ADDRESS AND FAILS TO DISCLOSE (1) A 1SP
UNIQUE ADDRESS IDENTIFIER FOR THE ISP AND (2) MAPPING OF THE
ADDRESS TO A DHCP ADDRESS BY A USER.

Beser at col. 2, lines 60-65 and col. 13, line 20 continuing to col. 14, line4 discloses a process for permanently setting a IP address for a cable modem using a client identifier generated by a client ID generator. The cable modem sends a DHCP discover message to a cable modem terminating system which issues a broadcast DHCP discover message to a DHCP proxy. The proxy sends a relayed DHCP discover message to DHCP servers on the internet. Each available DHCP server responds by sending a DHCP offer message which is received by the cable modem terminating system. The cable modem receive the configuration parameters, sets the parameters and notifies the DHCP server of its acceptance by sending a DHCP request message to request any reminding configuration parameters. In contrast, Allard discloses an ISP assigns a unique address identifying the IP to the DHCP, which maps the address to a DHCP request by a client. Page 12, lines 14 – 17. Beser fails to disclose board band server mapping an assigned IP address to a customer request based on a customer IP address assigned by the ISP.

4.6 SISTANIZADER DISCLOSES THE DESIGNATED IP ADDRESS THAT'S BOUND TO THE USER UNTIL 50% OF THE LEAST TIME EXPIRERS WHERE UPON THE USER SENDS AN ACKNOWLEDGMENT GOES OFF LINE AND FAILS TO DISCLOSE ANY ADDRESS EXPIRING WHEN THE CUSTOMER LOGS OFF.

Sistanizadeh at col. 13, line 56 - col. 14, line 32 discloses a BOUND STAGE exists as long as a PC is on line and has an IP. When 50% of lease time expires the PC performs another DHCP request seeking a renewal. Upon receipt of DHCPACK, the BOUND state is renewed

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and continues. If a DHCPACK is not received and 87.5% of the time has expired another DHCP request is sent. If an acknowledgment is returned, rebinding occurs and a BOUND condition continues. In the absence of acknowledgement and expiration of initial BOUND time the IP is no longer available and the PC is forced to go off line. In contrast, Allard discloses a test to determine if an ISP is ended a "yes" condition initiates customer log off using normal log off procedures. ISP allows a customer ISP address to expire; update its router table and send a log off message to the board band server. The board band server cancels the customer address and updates the router and database, after which the process ends. Page 12, line 21 continuing to page 13, line 4. Sistanizadeh fails to disclose canceling a unique customer IP address upon customer log off.

8. THE CITED REFERENCES, ALONE OR IN COMBINATION, FAIL TO DISCLOSE OR SUGGEST THE ELEMENTS OF THE PENDING CLAIM AND WHEN COMBINED OPERATE AT CROSS PURPOSES WHICH WOULD NOT ENABLE OR MOTIVATE A WORKER SKILLED IN THE ART TO IMPLEMENT THE PENDING CLAIMS.

Sistanizadeh disclose different modes for maintaining IP addresses. Beser applies a fixed IP address whereas Sistanizadeh maintains multiple passwords, IDs and IP address. The references would operate at cross-purposes and Sistanizadeh would be inoperative. Driscoll discloses sending a packet to an access point for forwarding to an ISP. The client identifier of Beser would conflict with the headers in Driscoll directing the packet to an ISP of choice. Accordingly, Beser and Driscoll operate at cross-purposes and would render Sistanizadeh further inoperative. A worker skilled in the art would have no teaching to implement claims 1 - 20j

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#### **CONCLUSION:**

The cited references, alone or in combination, disclose a conventional DHCP system for connecting customers to an ISP of choice via the DHP server. Even when the customers request is modified to include an extended client request mapped to a unique IP address there is no support in the combined teaches of the references to disclose or suggest a broadband IP based network enabling customers to request ISP service directly from an ISP provider of choice after pre-registering with the provider the provider. The ISP server serves as the primary server for customer access to the Internet. The ISP server notifies the DHCP server; updates the routing tables for the server and sends the server a notice of customer request to enable the server to emulate the provider in sending an acknowledgment to the customer. Without support in the cited references, a worker skilled in the art would have no basis to implement claims 1 – 20. The rejections are an error and should be withdrawn.

Entry of the Reconsideration of the Rejection; withdrawal of the rejections; allowance of the pending claims and passage to issue of the case are requested. Ser. No. 09/472,602

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### **AUTHORIZATION:**

The Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment under 37 C.F.R. §§ 1.16 and 1.17, or credit any overpayment to Deposit Account No. <u>09-0452</u>, Order No. BC-9-99-046 (1963-7353)

Respectfully submitted,
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By: 7

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